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Anti-ATP2B2 / PMCA2 Antibody (Internal)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18442

Product Information

Application	WB, IHC-P
Primary Accession	Q01814
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	136876
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	491
Alias Symbol	ATP2B2
Other Names	ATP2B2, PMCA2, Plasma membrane calcium ATPase, PMCA2i, Plasma membrane Ca2+ pump 2, Plasma membrane calcium pump, Plasma membrane Ca(2+)-ATPase, PMCA2a
Target/Specificity	Recognizes endogenous levels of PMCA2 protein.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-ATP2B2 / PMCA2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP2B2 {ECO:0000303|PubMed:15829536, ECO:0000312|HGNC:HGNC:815}
Function	ATP-driven Ca(2+) ion pump involved in the maintenance of basal intracellular Ca(2+) levels in specialized cells of cerebellar circuit and vestibular and cochlear systems (PubMed:15829536, PubMed:17234811). Uses ATP as an energy source to transport cytosolic Ca(2+) ions across the plasma membrane to the extracellular compartment (PubMed:15829536, PubMed:17234811). Has fast activation and Ca(2+) clearance rate suited to control fast neuronal Ca(2+) dynamics. At parallel fiber to Purkinje neuron synapse, mediates presynaptic Ca(2+) efflux in response to climbing fiber-induced Ca(2+) rise. Provides for fast return of Ca(2+) concentrations back to their resting levels, ultimately contributing to long-term depression induction and motor learning (By similarity). Plays an essential role in hearing and balance (PubMed:15829536, PubMed:17234811). In cochlear hair cells, shuttles Ca(2+) ions from stereocilia to the endolymph and dissipates Ca(2+)

	transients generated by the opening of the mechanoelectrical transduction channels. Regulates Ca(2+) levels in the vestibular system, where it contributes to the formation of otoconia (PubMed:15829536, PubMed:17234811). In non-excitable cells, regulates Ca(2+) signaling through spatial control of Ca(2+) ions extrusion and dissipation of Ca(2+) transients generated by store-operated channels (PubMed:25690014). In lactating mammary gland, allows for the high content of Ca(2+) ions in the milk (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Synapse {ECO:0000250|UniProtKB:Q9R0K7} [Isoform WB]: Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9R0K7}. Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9R0K7} [Isoform ZA]: Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9R0K7}
Tissue Location	Mainly expressed in brain cortex. Found in low levels in skeletal muscle, heart muscle, stomach, liver, kidney and lung. Isoforms containing segment B are found in brain cortex and at low levels in other tissues. Isoforms containing segments X and W are found at low levels in all tissues. Isoforms containing segment A and segment Z are found at low levels in skeletal muscle and heart muscle

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.